

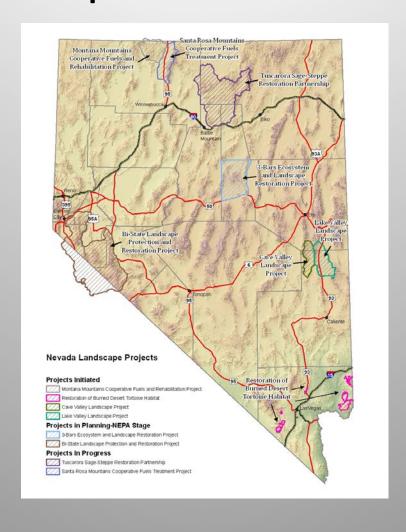
# The Next Steppe: Sage Grouse and Rangeland Wildfire in the Great Basin

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## BLM's Landscape Scale Approach

- BLM is addressing complex and widespread environmental challenges that cross traditional boundaries.
- BLM's approach is to better understand these challenges and support balanced stewardship of resources of the public lands.
- The landscape approach informs and enhances local management.

# Nevada's Landscape Approach Implementation



### Resistance & Resilience

- Identify locations that provide current or potential habitat for sage grouse
- Prioritize management actions based on the capacity of ecosystem to respond in desired manner
- Based on soil temperature and soil moisture regimes

Sage Grouse and Rangeland Wildfire in the

**Great Basin** 

### Proportion of Landscape Dominated by Sagebrush

Low 1-25%

### Moderate 26-65%

High >65%

Too little sagebrush on the landscape significantly threatens likelihood of sage-grouse persistence. Sage-grouse are sensitive to the amount of sagebrush remaining on the landscape and populations could be at-risk with additional disturbances that remove sagebrush.

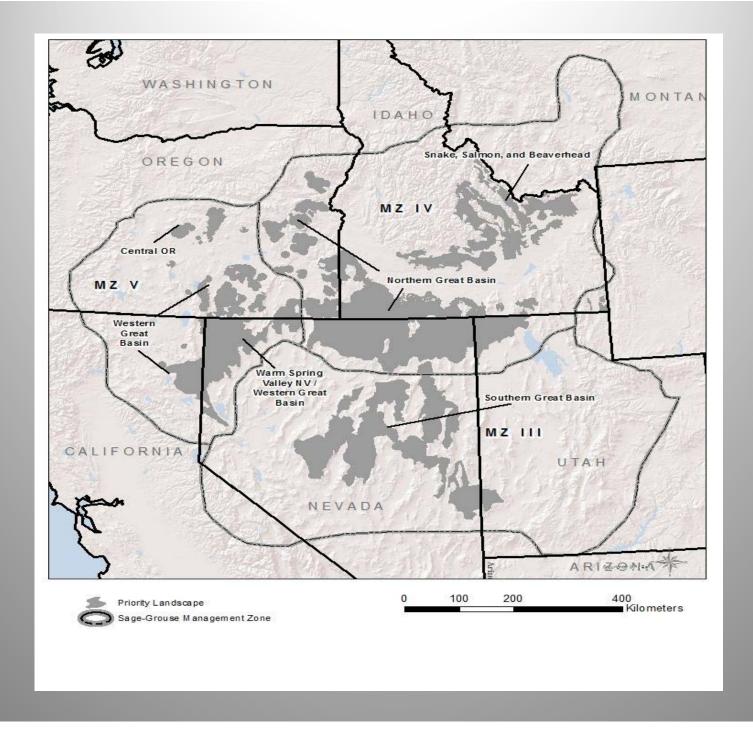
Sufficient sagebrush exists on the landscape and sage-grouse are highly likely to persist.

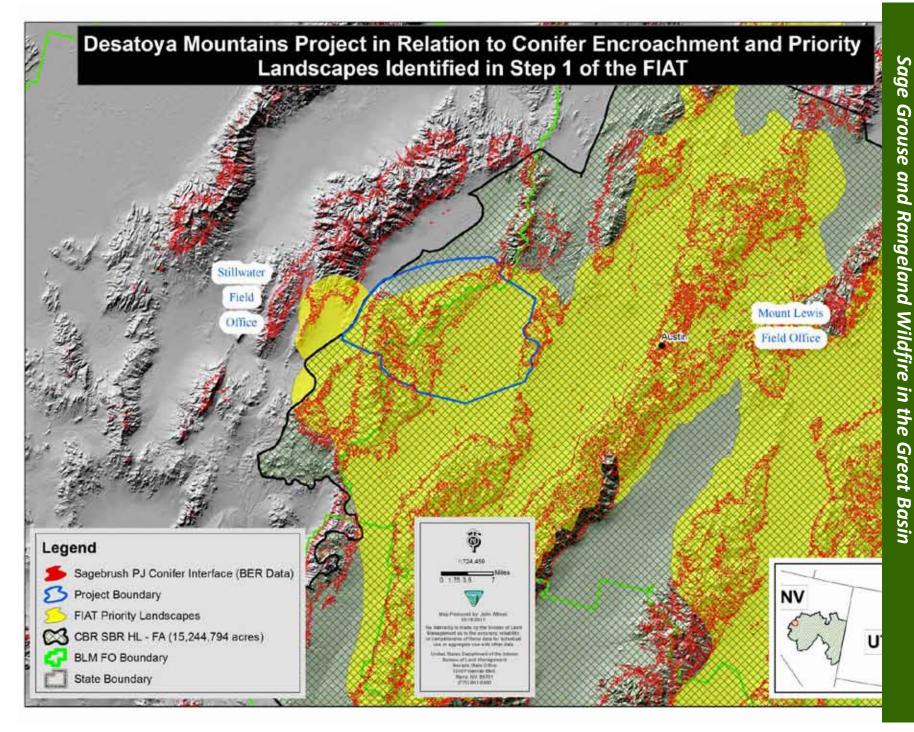
#### 14 18 16 Natural sagebrush recovery is Natural sagebrush recovery is likely to Natural sagebrush recovery is likely to occur, but if large, contiguous areas lack likely to occur. occur, but certain areas may sagebrush, the time required for lack connectivity. recovery may be too great. Perennial herbaceous species are typically sufficient for recovery. Risk of annual invasives is low. Seeding/transplanting success is high. Recovery following inappropriate livestock use is often possible given changes in management. 2A 2C Natural sagebrush recovery is likely on Natural sagebrush recovery is likely on Natural sagebrush recovery is likely on cooler and moister sites, but if large. cooler and moister sites, but certain areas cooler and moister sites. contiguous areas lack sagebrush, the time may lack connectivity. required for recovery may be too great. Perennial herbaceous species are usually adequate for recovery on cooler and moister sites. Risk of annual invasives is moderately high on warmer and drier sites. Seeding-transplanting success depends on site characteristics, and more than one intervention may be required especially on warmer and drier sites. Recovery following inappropriate livestock use depends on site characteristics and management. Natural sagebrush recovery is not likely. Natural sagebrush recovery may Natural sagebrush recovery may occur, but the time required will likely be occur, but the time required will likely too great and certain areas may lack be too great. connectivity. Perennial herbaceous species are typically inadequate for recovery. Risk of annual invasives is high. Seeding/transplanting success depends on site characteristics, annual invasives, and post-treatment precipitation but is often low. More than one intervention likely will be required. Recovery following inappropriate livestock use is unlikely.

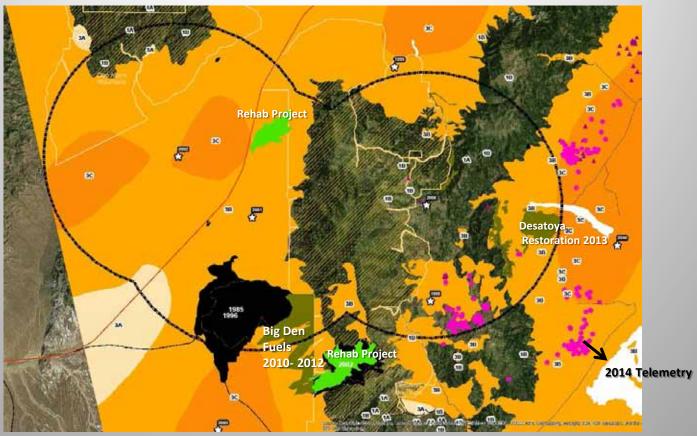
Ecosystem Resilience to Disturbance and Resistance to Invasive Annual Grasses

Moderate

High







### Desatoya Focal Habitat – Step 2 FIAT

This slide identifies previous fire scars (black), completed Rehab Projects (light green), Telemetry (pink), Fuels and Restoration Projects (olive green) low resistance and resilience areas (3A, 3B, 3C) have occurred in recent past using a landscape approach along with the telemetry data from 2014 from the FIAT Process.



### Desatoya Focal Habitat – Step 2 FIAT Conifer Expansion

Planned conifer removal of 5142 acres of treatments FY 2016-2020 in Healthy Lands and 4930 acres of conifer encroachment removal in FY 2016-2020 in Fuels Management due to the risk of wildland fire. Along with proposed fuel breaks strategically located along road systems to protect low resistance and resilience areas. This assessment validated working on treatments already being completed and will expand this project in the future.



A State Director's Perspective Amy Lueders, BLM Nevada State Director

: Basin

# Emergency Stabilization & Rehabilitation

- Esmeralda Fire 2005 northwest Elko County
- Burned 97,000 acres.
- A total of 28 leks were directly impacted by the fire and additional 9 leks were in close proximity to the fire perimeter.
- Area affected by the fire provided habitat for one of the highest documented sage grouse population densities in Nevada.
- Successful Rehabilitation seedings in cooperation with the Nevada Department of Wildlife and private land owner, Barrick (Squaw Valley Ranch) are providing nesting and brood rearing habitat. Sage grouse were documented us the seeded areas within three years of the fire.



**Esmeralda Fire** 

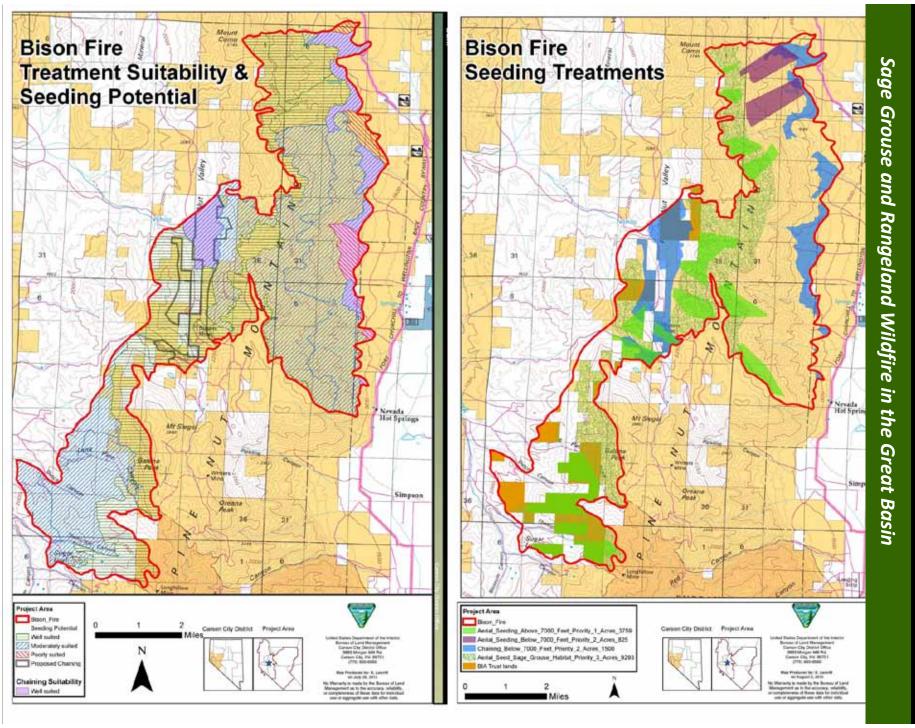
April after fire occurred





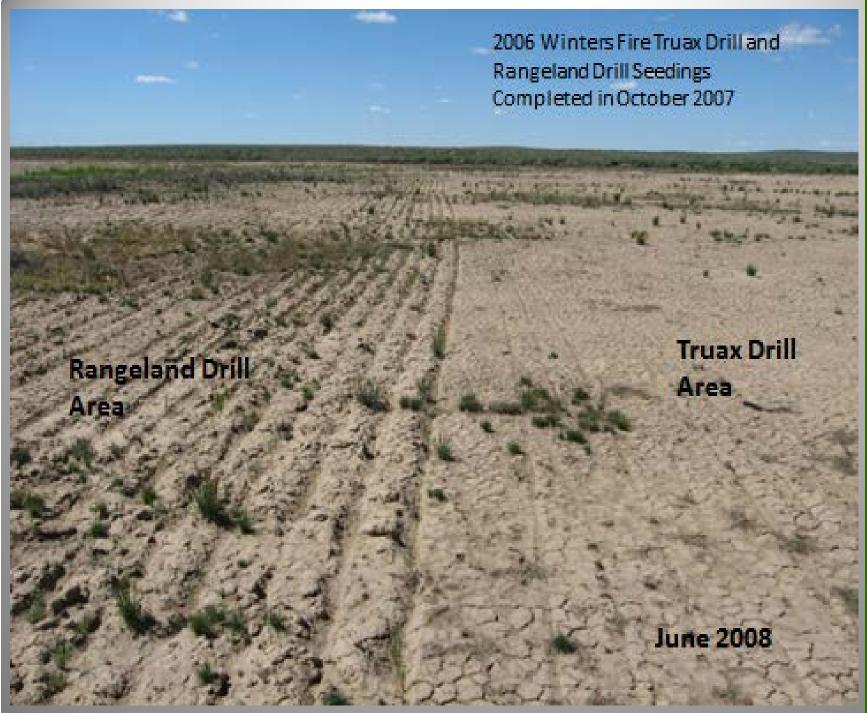
### Bison Fire Example

- 2013 Fire
- Limited Emergency Stabilization Funding that year
- Extensive GIS analysis to plan seeding
- Seeding treatments planned based on priority habitat, elevation, soils, precipitation, degradation potential and seeding suitability (similar to Resistance and Resiliency concepts)
- Multi-agency process



### **NV BLM Native Plant Issues**

- Need more locally adapted species for restoration
- Consistent funding stream to make market attractive to plant growers
- Only 1 cultivar from Nevada available commercially – Toe Jam Creek squirrel tail



# Challenges

- How to incorporate new science into planning and implementation
  - Timing
  - Consistency
- Integrated funding for restoration projects
  - Differing program objectives and requirements
- Timing of funding allocations



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